

The Status of Water Quality in Arizona – 2004

Arizona's Integrated 305(b) Assessment and 303(d) Listing Report

DRAFT FEBRUARY 2004

Approved by:

Karen L. Smith, Director, Water Quality Division

Linda Taunt, Manager, Hydrologic Support and Assessment Section

Susan Ward-Craig, Manager, Watershed Management Unit

DRAFT -- The Status of Water Quality in Arizona -- 2004
Arizona's 2004 Integrated 305(b) Assessment and 303(d) Listing Report

Prepared by:
Melanie Diroll and Diana Marsh

Editing and assistance: Linda Taunt, Susan Ward-Craig
Graphic assistance: Maxwell Enterline
Database assistance: Chris Conneran, Eileen McMullen, Patti Tuve
Groundwater analysis: Angela Lucci, Doug Towne
Surface water assessments: Mario Castaneda, Maxwell Enterline, Julie Finke, Cheri Horsley, Linda Taunt, Susan Ward-Craig

A special thanks to the ambient monitoring staff who travel across the state collecting the data used in this report:
Patsy Arias, Elizabeth Boettcher, Amanda Fawley, Susan Fitch, Joe Harmon, Jennifer Hickman, Lee Johnson, Lin Lawson, Angela Lucci, Doug McCarty, Greg Olsen,
Kyle Palmer, Samuel Rector, Robert Scalamera, Patti Spindler, Jason Sutter, Doug Towne, and R. Scott Williams

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007
(602) 771-2300
In Arizona 1-800-234-5677
TTD (602) 771-4829

Program Contacts

ADEQ's Web Site – Current information about programs and status of many projects can be downloaded from ADEQ's Web Site: <http://www.adeq.state.az.us>

ADEQ's Programs -- Further information about water quality ambient monitoring data, standards, and assessments can be obtained by contacting the following ADEQ program staff:

Assessments: Melanie Diroll (602) 771-4616
Bioassessment: Patti Spindler (602) 771-4543
Lakes monitoring: Susan Fitch (602) 771-4541
Fish advisories: Sam Rector (602) 771-4536
GIS coverages: Victor Gass (602) 771-4517
Ground water monitoring (ambient): Doug Towne (602) 771-4412
Ground water data retrievals: Marianne Gilbert (602) 771-4563
Nonpoint Source Program: Susan Ward-Craig (602) 771-4509
NPDES (AZPDES) & federal certifications: Chris Vargas (602) 771-4665
Surface water monitoring: Steve Pawlowski (602) 771-4219
Surface water standards: Steve Pawlowski (602) 771-4219
Pesticides: Wang Yu (602) 771-4552
Priority pollutants and toxic substances: Sam Rector (602) 771-4536
TMDL Program: Nancy LaMascus (602) 771-4468
208 Planning: Edwina Vogan (602) 771-4606
Water Quality Improvement Grants Program: Sandy Sutton (602) 771-4635
Watershed Management Program: Susan Ward-Craig (602) 771-4509

A more comprehensive list of water quality protection programs is provided in the final appendix of this report (**Appendix E**).

Other Agencies -- Contact the following agencies to obtain further information about their programs or to obtain copies of their data:

Arizona Department of Water Resources - Basic Data (602) 417-2457
Arizona Game and Fish Department (602) 789-3260
 Urban Lakes Program (602) 789-3268
Arizona State Parks
 Slide Rock State Park (520) 639-2962 (Steve Pace)
Environmental Protection Agency Region IX (San Francisco)
 303(d) and TMDL's (415) 972-3416 (Dave Smith)
 305(b) Assessments (415) 972-3462 (Terry Fleming)
 Standards Development (415) 972-3498 (Gary Wolinsky)
 Nonpoint Source (415) 972-3444 (Ephraim Leon-Guerrero)
Mohave County Health Department -- Lake Havasu (520) 453-0712 (Sandy Hillery)
National Parks Service
 Glen Canyon National Recreation Area (520) 608-6377
 Grand Canyon National Park (520) 638-7905 (John Rihs)
Salt River Project (602) 236-5900 (Greg Elliott)
Southern Nevada Water Authority (702) 258-3948 (Jeff Johnson)
University of Arizona, (520) 626-2386 (Dave Walker)
US Army Corps of Engineers (213) 452-3529 (Robert Stewart)
US Bureau of Land Management/Phoenix (602) 580-5500 (Jim Renthal)
US Bureau of Reclamation
 Colorado Grand Canyon (520) 556-7051
 Upper Colorado Region (801) 524-3700 (Jerry Miller)
 Lake Powell (928) 608-6377 (Mark Anderson)
US Fish and Wildlife Service (602) 640-2720 (Kirke King)
US Forest Service
 Apache-Sitgreaves National Forest (928) 333-4301
 Coconino National Forest (520) 527-3600
 Coronado National Forest (520) 670-4552 (Robert Lafevre)
 Kaibab National Forest (928) 635-8200 (Dave Brewer)
 Prescott National Forest (928) 567-4121 (Michelle Girard)
 Tonto National Forest (602) 225-5200 (Grant Loomis)
US Geological Survey (480) 379-3087 (Cheryl Partin)
 NAWQA (520) 670-6135 (x223) (Gail Cordy)

Table of Contents

	Page
<u>I. Arizona's Integrated Assessment and Listing Process</u>	
Why do we write this report?	I - 1
State TMDL statute and Impaired Water Identification Rule	I - 1
Federal regulations and guidance	I - 2
Table 1. EPA requested data or information	I - 2
Changes in the assessment process	I - 3
How is the assessment and listing approved?	I - 4
<u>II. Arizona's Unique Hydrology</u>	
Arizona's ecologic, hydrologic, and geographic diversity	II - 1
Table 2. Arizona atlas	II - 2
Figure 1. Arizona's ecosystems	II - 3
Figure 2. Arizona's hydrologic provinces	II - 3
Table 3. An estimate of water resources	II - 5
Figure 3. Land ownership categories	II - 6
Figure 4. Perennial streams	II - 6
Figure 5. Mean annual precipitation	II - 7
Figure 6. Mean annual temperature	II - 7
Watershed, hydrologic unit code areas, and basins	II - 8
Figure 7. Hydrologic unit code areas	II - 9
Figure 8. Surface water basins	II - 11
Figure 9. Watersheds	II - 11
Figure 10. Ground water basins	II - 12
<u>III. How are Water Quality Assessments Performed</u>	
The assessment process	III - 1
Do all waters have to meet the same standards?	III - 2
What changes have been made since the last assessment in 2002?	III - 3
Do some waters have special standards to meet?	III - 5
Figure 11. Unique Waters	III - 6
Figure 12. Effluent dependent waters	III - 7
Arizona's assessment criteria	III - 9
Which Cottonwood Wash and how much was assessed?	III - 12
Figure 13. Reach delineations	III - 12
Figure 14. 2004 Assessment process diagram	III - 13
How do lake and stream assessments differ?	III - 14
Table 4. Trophic classification thresholds	III - 14

	Page
Can one get a copy of the monitoring data used?	III - 14
<u>IV. Surface Water Monitoring and Assessment Information</u>	
How are these assessments organized?	IV - 1
How is a surface water added or removed from the 303(d) List?	IV - 1
How is a surface water added or removed from the Planning List?	IV - 3
Overview of assessment terms and criteria	IV - 4
<u>Bill Williams Watershed</u>	IV - 5
Figure 15. Watershed monitoring and assessments	IV - 6
Table 5. Monitoring Data Table	IV - 7
Table 6. Assessment, Planning List, and 303(d) List	IV - 19
<u>Colorado - Grand Canyon Watershed</u>	IV - 22
Figure 16. Watershed monitoring and assessments	IV - 23
Table 7. Monitoring data table	IV - 24
Table 8. Assessment, Planning List, and 303(d) List	IV - 29
<u>Colorado - Lower Gila Watershed</u>	IV - 33
Figure 17. Watershed monitoring and assessments	IV - 34
Table 9. Monitoring data table	IV - 35
Table 10. Assessment, Planning List, and 303(d) List	IV - 41
<u>Little Colorado River - San Juan Watershed</u>	IV - 43
Figure 18. Watershed monitoring and assessments	IV - 44
Table 11. Monitoring data table	IV - 45
Table 12. Assessment, Planning List, and 303(d) List	IV - 59
<u>Middle Gila Watershed</u>	IV - 67
Figure 19. Watershed monitoring and assessments	IV - 68
Table 13. Monitoring data table	IV - 69
Table 14. Assessment, Planning List, and 303(d) List	IV - 99
<u>Salt Watershed</u>	IV - 108
Figure 20. Watershed monitoring and assessments	IV - 109
Table 15. Monitoring data table	IV - 110
Table 16. Assessment, Planning List, and 303(d) List	IV - 137
<u>San Pedro-Willcox Playa - Rio Yaqui Watershed</u>	IV - 144
Figure 21. Watershed monitoring and assessments	IV - 145
Table 17. Monitoring data table	IV - 146
Table 18. Assessment, Planning List, and 303(d) List	IV - 160
<u>Santa Cruz - Rio Magdalena - Rio Sonoyta Watershed</u>	IV - 165
Figure 22. Watershed monitoring and assessments	IV - 166

	Page
Table 19. Monitoring data table	IV - 167
Table 20. Assessment, Planning List, and 303(d) List	IV - 191
<u>Upper Gila Watershed</u>	IV - 197
Figure 23. Watershed monitoring and assessments	IV - 198
Table 21. Monitoring data table	IV - 199
Table 22. Assessment, Planning List, and 303(d) List	IV - 211
<u>Verde Watershed</u>	IV - 215
Figure 24. Watershed monitoring and assessments	IV - 216
Table 23. Monitoring data table	IV - 217
Table 24. Assessment, Planning List, and 303(d) List	IV - 240
 <u>V. 2004 303(d) List, Assessment Categories, and TMDL Schedule</u>	
Figure 25. 2004 assessments of streams	V - 3
Figure 26. 2004 assessments of lakes	V - 4
Assessment categories and Arizona's Planning List	V - 5
Table 25. Category 5 - Impaired waters	V - 5
Table 26. Category 4 - Not attaining (Impaired)	V - 9
Table 27. Category 3 - Inconclusive waters	V - 12
Table 28. Category 2 - Waters attaining some uses	V - 22
Table 29. Category 1 - Waters attaining all uses	V - 28
What will Arizona be removing from its 2002 303(d) List?	V - 31
Table 30. Pollutants and surface waters to be removed from the 2002 303(d) List.	V - 31
Which TMDLs will ADEQ do next?	V - 35
Table 31. TMDL priority ranking and schedule	V - 36
 <u>VI. How Clean is Surface Water in Arizona?</u>	
Water quality in streams, canals, and washes	VI - 1
Figure 27. Overall use support assessments - streams	VI - 1
Figure 28. Support by designated use - streams	VI - 1
Table 32. Use support summary - streams	VI - 2
Water quality in lakes and reservoirs	VI - 3
Figure 29. Overall use support assessments - lakes	VI - 3
Figure 30. Support by designated use - lakes	VI - 3
Table 33. Use support summary - lakes	VI - 4
What pollutants impair lakes and streams?	VI - 5
Table 34. Pollutants impairing streams	VI - 5
Figure 31. Pollutants impairing streams	VI - 5
Table 35. Pollutants impairing lakes	VI - 6
Figure 32. Pollutants impairing lakes	VI - 6

	Page
Table 36. Surface waters with significant turbidity and/or SSC exceedances	VI - 8
What are the major sources of these pollutants?	VI - 11
Table 37. Probable sources of stream pollutants	VI - 11
Figure 33. Probable sources of stream pollutants	VI - 11
Table 38. Probable sources of lake pollutants	VI - 12
Figure 34. Probable sources of lake pollutants	IV - 12
A few words about point and nonpoint sources	VI - 13
Table 39. Point and nonpoint source contributions	VI - 14
Is the water safe to drink, swim in, and fish from?	VI - 14
Table 40. Fish consumption advisories	VI - 15
Table 41. Reported fish kills and abnormalities	VI - 17

VII. Ground Water Quality: Out of Sight Not Out of Mind

How does ADEQ characterize ground water?	VII - 1
Figure 35. Ground water basin studies	VII - 1
Figure 36. Pesticide monitoring in Arizona	VII - 3
Ground water quality in Arizona	VII - 4
Figure 37. Arsenic concentrations in wells	VII - 5
Figure 38. Fluoride concentrations in wells	VII - 6
Figure 39. Hardness levels in wells	VII - 7
Figure 40. Nitrate concentrations in wells	VII - 9
Figure 41. Gross alpha and uranium concentrations in wells	VII - 10
Figure 42. Total dissolved solids concentrations in wells	VII - 11

VIII. Taking Care of Water Quality Problems

The Nonpoint Source Program	VIII - 1
Surface Water Monitoring Program	VIII - 2
Table 42. Arizona's watershed cycle	VIII - 3
Figure 43. Fixed long-term monitoring sites	VIII - 4
Total Maximum Daily Load (TMDL) Program	VIII - 6
Figure 44. Status of TMDLs in Arizona	VIII - 7
Watershed Management Program	VIII - 11
Table 43. Arizona's watershed partnerships	VIII - 14
Putting it all together	VIII - 19

APPENDICES

- A. Acronyms, Abbreviations, Definitions and Units of Measure**
- B. Arizona's New TMDL Statute and Impaired Water Identification Rule**
- C. Arizona's Surface and Ground Water Quality Standards**

I. Arizona's 2004 Integrated Assessment and Listing Process

Why do we write this report?

This biennial report consolidates reporting requirements under the federal Clean Water Act sections 305(b) (assessments), 303(d) (impaired waters list), 106 (monitoring), 204 (grants), 319 (nonpoint source), and 314 (lakes program). It incorporates recommendations made in the U.S. Environmental Protection Agency's (EPA) "Guidance for 2004 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act" issued in July 2003. This report also provides information required in Arizona's TMDL statute (Arizona Revised Statute 49-231 through 49-238) and Impaired Water Identification Rule (Arizona Administrative Code R11-18-601 through 606).

In addition, the Arizona Department of Environmental Quality (ADEQ) recognizes that this report can provide many state and federal agencies, organizations, and interested parties with a current reference document on the status of surface and ground water quality in Arizona. The following objectives are fulfilled by the publication of this water quality assessment report:

-
- Report on statewide surface and ground water quality in Arizona (excluding tribal lands);
- Identify and delineate all assessed surface waters;
- Identify the status of designated use support for individual surface waters based on numeric or narrative water quality standards;
- Document the basis for ground water and surface water assessment determinations;
- Identify pollutants or water quality characteristics that cause impairment;
- Identify possible sources of pollutants;
- Indicate where standards are exceeded solely due to natural conditions;
- Describe the state's monitoring program and progress toward achieving comprehensive assessments for all surface waters;
- Identify where additional monitoring may be needed to complete assessments (Planning List) or support the development of Total Maximum Daily Load (TMDL) analyses, including a schedule for this monitoring;
- Identify and prioritize where additional TMDLs need to be completed;
- Provide opportunity for public review and respond to comments concerning assessments and the state's 303(d) listing proposals;

This report was written to be useful for both technical and nontechnical

audiences. Technical terms, acronyms, and abbreviations used in this document are defined in **Appendix A**.

State TMDL statute and Impaired Water Identification Rule

The 2002 Integrated Assessment and Listing Report marked a significant change in Arizona's assessment and listing processes, due to new state statutes and regulations adopted in 2000.

These statutes and rules regulate the identification of impaired waters and the prioritization and completion of Total Maximum Daily Load (TMDL) analyses. Arizona continues to implement these requirements, described below, in the 2004 report.

A Total Maximum Daily Load Analysis (TMDL)

A TMDL is a written, quantitative plan and analysis to determine the maximum loading on a pollutant basis that a surface water can assimilate and still attain and maintain a specific water quality standard during all conditions. The TMDL allocates the loading capacity of the surface water to point sources and nonpoint sources identified in the watershed, accounting for natural background levels and seasonal variation, with an allocation set aside as a margin of safety.

Total Maximum Daily Load

Statute -- Arizona Revised Statute Title 49, sections 231-238 (**Appendix B**), established procedures for identifying impaired waters which require TMDL analyses. For 303(d) listing decisions, the statute requires that ADEQ:

- Adopt, by rule, the methods used to identify "impaired" waters;
- Use only reasonably current, credible, and scientifically defensible data;
- Consider the nature of the water (e.g., ephemeral, intermittent, or perennial) in assessing whether a surface water is impaired;
- Determine whether pollutant loadings solely from naturally occurring conditions are sufficient to exceed a water quality standard, and if so, not list as "impaired";
- Adopt narrative implementation procedures through a public process before using narrative standards to identify impaired waters. These procedures must identify the objective basis for determining a narrative or biological standard violation.

Impaired Water Identification Rule -- ADEQ developed the Impaired Water Identification Rule (R18-11-601 through R18-11-606) (**Appendix B**) as required in the state statute discussed above. These rules establish the following:

- < Criteria for identifying a surface water as impaired and placing it and identified pollutants on the 303(d) List;
- < Criteria for removing a pollutant or surface water from the 303(d) List;
- < Criteria for prioritizing the 303(d) listed waters for TMDL development.
- < “Credible data” criteria;
- < Data submission and record keeping;
- < General data interpretation requirements; and
- < Criteria for placing a surface water on the Planning List for further monitoring;

Although the Impaired Water Identification Rule regulates the listing of waters only, and does not set requirements on those waters not placed on the 303(d) List or Planning List, ADEQ has chosen to apply the same data interpretation criteria to all waters assessed to maintain consistency of methods. Data which does not meet the “credible data requirements” will not be used to make any assessment, be it “attaining” or “impaired.” All data collected by or submitted to ADEQ will be considered and noted in the monitoring tables, but will not be used to make an assessment if credible data requirements are not fulfilled.

Federal guidance and regulations

New Federal Guidance – In July 2003, EPA issued “Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act” concerning the development and submission of the 2004 305(b) water quality report and the 303(d) List of impaired waters. This guidance recommended, as it did for the 2002 assessment, that states submit an integrated water quality assessment report that included the state’s 303(d) listed waters. **Table 1** indicates the information EPA requested, and where this information can be found in this report.

Table 1. EPA Requested Data or Information

Data or Information Requested	Data or Information Provided in This Report
Geographic delineations of each surface water assessed based on the new National Hydrography Dataset.	Arizona will be sending EPA the geographic delineations requested.
Status of and progress toward achieving comprehensive assessments of all waters.	Chapter VI provides an overview of surface water quality assessments and Chapter VII provides an overview of ground water quality assessments. ADEQ’s monitoring programs are described in Chapter VIII.
Water quality standard attainment determinations for each surface water assessed.	Detailed monitoring information for each surface water assessed is provided in Chapter IV. Information is arranged by watershed. These tables clearly indicate the basis for each assessment.
Identify additional monitoring that may be needed to determine water quality standard attainment status and, if necessary, to support development of TMDLs.	The assessment tables in Chapter IV and the five category lists in Chapter V indicate whether a surface water will be on the Planning List or TMDL list and the pollutant(s) of concern. Monitoring activities are being developed based on this information.
Schedules for additional monitoring planned for each surface water assessed.	Chapter VIII describes ADEQ’s monitoring programs, how these programs are integrated within the agency and with other agencies, and how waters are scheduled through a 5-year watershed monitoring cycle.
Surface waters and pollutants still requiring TMDLs.	Impaired waters which require TMDLs and their pollutants of concern are identified on the Category 5 list in Chapter V.
TMDL development schedules reflecting the priority ranking of each surface water and/or pollutant combination.	A priority ranking and a schedule for completing TMDLs for each pollutant impairing a surface water is provided in Chapter V.
A description of the assessment and listing methodology used to develop Clean Water Act section 303(d) Lists and section 305(b) Assessments.	Chapter III describes the assessment and listing methods used. Appendix B provides a copy of the Impaired Water Identification Rule and Arizona’s statute concerning the listing process and TMDL development.
A description of the public participation process involved in developing the 303(d) list.	The public participation process is described in this chapter (Chapter I).

EPA guidance suggests that each surface water assessed is to be placed on one of the following five categories depending on the sufficiency of data and number of exceedances as defined in Arizona's assessment and listing methods (see discussion in Chapter III):

- Category 1. Surface waters where all designated uses are being attained.
- Category 2. Surface waters are attaining some designated uses but there are insufficient data to assess the remaining uses.
- Category 3. Surface waters with insufficient data to assess any designated use.
- Category 4. Surface waters are assessed as "not attaining" one or more designated use but a Total Maximum Daily Load (TMDL) analysis will not be required for one of the following reasons:
 - 4 A. A TMDL has already been completed and approved by EPA but the water quality standards are not yet being attained.
 - 4 B. Other pollution control requirements are reasonably expected to result in the attainment of water quality standards by the next regularly scheduled listing cycle.
 - 4 C. The impairment is not related to a "pollutant" loading but rather caused by "pollution" (e.g., hydrologic modification).
- Category 5. Surface waters are impaired for one or more designated uses by a pollutant and require development of a TMDL.

Note that EPA guidance suggests that waters assessed as "threatened" be placed in Category 5. Arizona will include "threatened" waters in Category 2 or 3 as "inconclusive" and in need of further monitoring until federal regulations clarify whether "threatened" waters must be included in the 303(d) List of impaired waters. Arizona is also waiting for EPA to establish clear methods for the trend analysis necessary to identify threatened waters (e.g. minimum number of samples needed to develop a trend). However, for this assessment, no waters were assessed as "threatened."

Federal Regulations -- Impaired water listing requirements are also established in federal regulations (40 Code of Federal Regulations parts 122, 124, and 130.7). These regulations were applied in this assessment.

Changes in the assessment process

A few significant changes, summarized below, have been made to ADEQ's water quality assessment process since the last report in 2002.

Application of Chronic Standards -- The 2004 assessment is the first time ADEQ has applied chronic standards for the Aquatic and Wildlife designated use using the requirements of the Impaired Water Identification Rule (Appendix B, R18-11-605.D.2.b). In accordance with the rule, a surface water is assessed as "impaired" if more than one exceedance of an Aquatic and Wildlife chronic water quality standard occurs. Although a geometric mean of the last four samples must be taken to apply the standard for enforcement purposes, the Impaired Water Identification Rule requires only two exceedances to be placed on the 303(d) List, with no minimum sample size or application of a geometric mean.

Acute and Chronic Standards

Some water quality parameters have both an "acute" and a "chronic" standard (Appendix C). Acute standards are set at higher concentrations than chronic standards to protect aquatic life and wildlife from short-term exposures to the parameter of concern. Chronic standards are set at lower concentrations than acute standards to protect aquatic life and wildlife from effects of long-term exposure.

Turbidity and the New Suspended Sediment Concentration Standard -- Arizona repealed its turbidity standard in March of 2002 and adopted a suspended sediment concentration (SSC) standard of 80 mg/L, expressed as a geometric mean with a four sample minimum, to protect Aquatic and Wildlife designated uses. As established in Arizona's Impaired Water Identification Rule (Appendix B), more than one exceedance of this geometric mean standard would result in an assessment of "impaired." One exceedance would be assessed as "inconclusive."

The new suspended sediment concentration standard is only applicable to samples collected at or near base flow, which the U.S. Geological Survey (USGS) defines as "flow sustained largely by ground water discharge." Precipitation events and most runoff must be excluded. To apply this standard for assessment purposes, it is necessary to calculate base flow for each site, which requires a large amount of flow data. Therefore, an assessment of SSC was usually possible only at or near USGS gaging stations, where an abundance of current and historical flow data is available. SSC assessment methods are explained in Chapter III.

Since the SSC standard was just recently adopted in 2002, a minimal amount of data were available for this assessment. Thus, ADEQ has continued to assess the turbidity standard repealed in 2002 in an effort to record potential suspended sediment problems. Additionally, these exceedances provide evidence of a potential narrative bottom deposit standard violation. The standard was assessed according to the methods described in Chapter III, and waters were either assessed as “attaining” or “inconclusive” due to turbidity. No 303(d) listings were made based on this parameter, since the standard was repealed. Any waters that would have been impaired or inconclusive under the former standard were called “inconclusive” and placed on the Planning List for further study.

It should be noted that EPA may place those waters that would have been impaired under the former standard on the 303(d) List, citing the exceedances as evidence of a narrative standard violation. ADEQ cannot make 303(d) listings based on narrative standards violations until narrative standard implementation procedures are adopted (procedures are currently being developed). A table showing all waters with significant turbidity and/or SSC exceedances appears in Chapter VI.

How is the assessment and listing approved?

The Arizona 2004 303(d) Submission to EPA – In accordance with Arizona Revised Statute (49-232.A), the proposed 303(d) List is submitted to EPA following public review and publication of the list and response to comments in the Arizona Administrative Register. The 303(d) List is due to EPA on April 1st of each even-numbered year. The 2004 Integrated Report will be available at ADEQs web site in Adobe PDF format at: www.adeq.state.az.us.

The table showing Category 5 surface waters is the list of impaired waters that is submitted to EPA in April 2004. The list identifies, by surface water segment, the pollutants or surface water characteristics not meeting surface water quality standards. EPA must approve this list and has the authority to add or remove surface waters from the list based on the federal Clean Water Act, regulations, or policies. Therefore, the list shown in this report can be modified by EPA. If changes are made, ADEQ will then provide a revised list on its internet site: www.adeq.state.az.us.

Public Participation in Arizona’s Listing Process – Communicating with the public and promoting public input into the 303(d) listing process is an integral component of ADEQ’s water quality management programs. A 30-day public review of this draft report is provided in November 2003. A copy of the report is posted on ADEQ’s web site, notices are placed in six local newspapers throughout the state (Phoenix, Tucson, Flagstaff, Sierra Vista, Yuma, and St.

Johns), and flyers concerning the public review are mailed to a list of interested persons. Copies of the draft report are available on CD, in hard copy, or as an electronic download from the Internet.

Arizona’s TMDL statute provides that any party who submits written comments on the draft list may challenge a surface water listing. Any challenged listing will not be included on the initial submission to EPA, but may be subsequently submitted if the listing is upheld in the director’s final administrative decision.

The response to comments and the draft 303(d) List is published in the Arizona Administrative Register on **xxx, 2004**, according to Arizona Revised Statute 49-232. Publication of the list in the Arizona Administrative Register is an appealable agency action and may be appealed by any party that submitted written comments on the draft list. If a notice of appeal of a listing occurs within the 45-day publication period in the Arizona Administrative Register, ADEQ cannot include the challenged listing in its initial submission to EPA until the listing is upheld by ADEQ’s Director or if the challenge is withdrawn.

EPA List Approval Process -- Within 30 days of receipt of a completed listing package, EPA must act on a state’s list and priority ranking. EPA may approve or disapprove the entire list or disapprove only deficient portions.

If it disapproves a portion, EPA must within 30 days identify corrections (i.e., surface waters, pollutant(s), priority rankings) needed to make the list consistent with EPA regulations. EPA must also initiate another public review and comment period. The agency publishes its intended revisions in the *Federal Register*, newspaper notices, and other methods of notifying interested parties.

At the end of the comment period, EPA will evaluate public comments and compile a revised list. This corrected list is sent back to ADEQ to be incorporated into the water quality management plans and used as Arizona’s approved 2004 303(d) List.

EPA Action on the Methods – Arizona’s Impaired Water Identification Rule (**Appendix B**) establishes Arizona’s 303(d) listing procedures. EPA provided comments on the rule in 2002 when it was developed. Although EPA does not have authority to approve this rule, EPA considers the methods it establishes when it reviews the 303(d) List Arizona submits. As described above, EPA may cite any deficiencies it raised in comments as a factor in a decision to disapprove all or part of Arizona’s 303(d) List.

After EPA’s final action is taken, ADEQ will post the final 2004 303(d) List on its website. Copies of the 2002 303(d) List (the current list, until EPA approves

the 2004 list) are downloadable from the ADEQ web site in Adobe PDF format at: www.adeq.state.az.us.